

### **ABSTRACT OF THE DISCLOSURE**

A system and method for implementing large and/or multiple telecommunication protocols utilizing memory-limited processors. Telecommunication protocols are expressed as virtual machine instructions defining a finite state machine. A telecommunication protocol engine implements the telecommunication protocols using a virtual machine operating under the control of a CPU. A telephony gateway comprising a telecommunication protocol engine interfaces with a communication device and a packet switched network. A network of telephony gateways communicating with a provider gateway facilitates communication over a packet switched network. A call placed by a calling telephony gateway to a receiving device on the same network or another network is routed according to a prefix in a telephone code sent by the calling telephony gateway.